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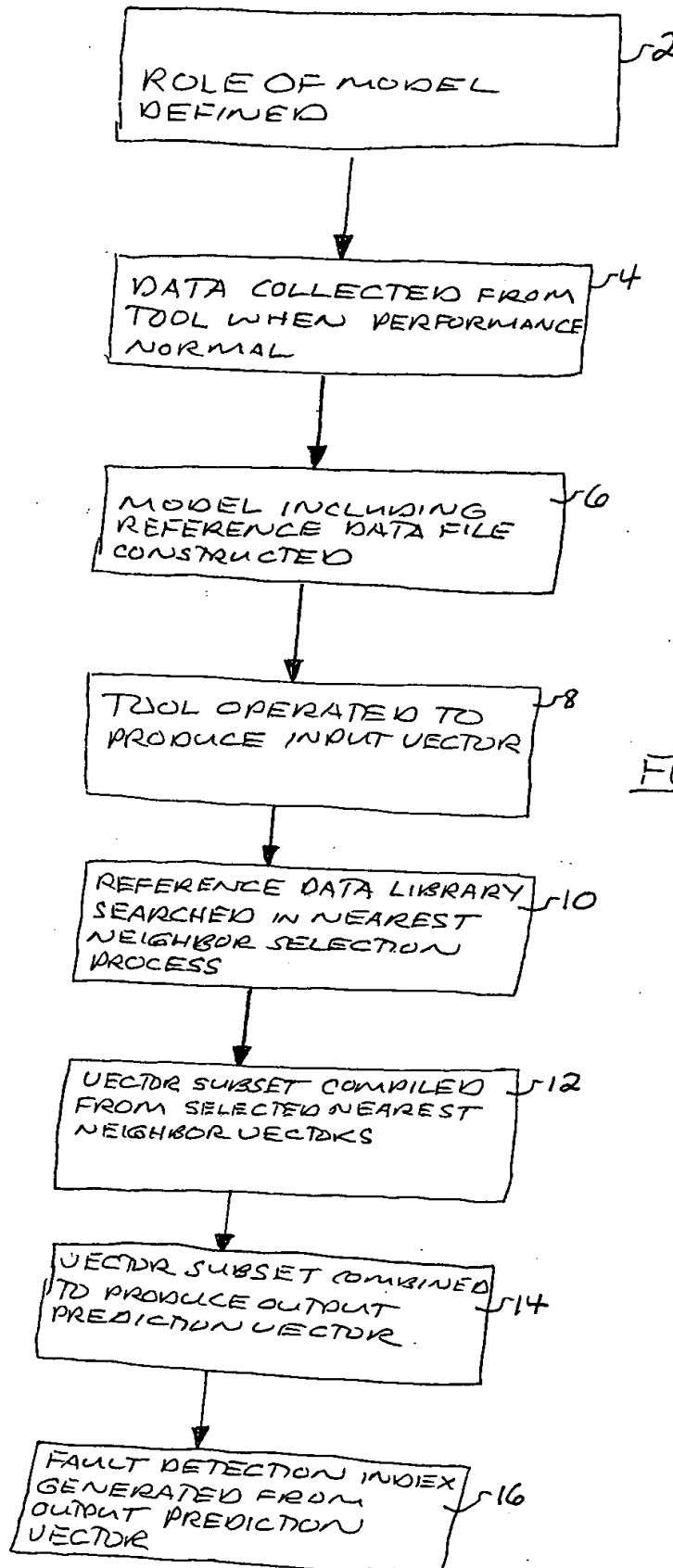
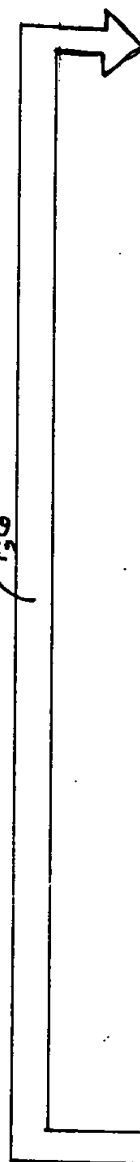


FIG. 1A

FIG. 1B is a block diagram of a system 100 for processing data. The system 100 includes a processor 102, a memory 104, and a database 106. The processor 102 is configured to execute instructions stored in the memory 104 to access data from the database 106 and perform operations on the data. The database 106 stores a large amount of data, which is represented by a large arrow pointing to the database 106.

436



Reference Data (model)

170	171	172	173	174	175	176	177	178	179	N
1	2	3	4	5	6	7	8	9	10	
Ch pressure	27	268	27	271	269	268	271	271	272	272
Trottle Valve	10	9	10	10	10	11	9	10	10	10
Forline Pres	235	230	232	238	237	236	234	233	236	236
Gas 1	11	10.9	11.2	11.2	11	10.8	11.2	11	11	11
Out1 (Synthetic)	25	24.8	24.9	25	25	25	25	25	25	25
stage	1	2	1	1	2	2	2	2	2	2
susceptor temp.	9	5	1	8	5	5	5	9	7	7

112

106a	106b	106c	106d	106e	106f	106g	106h	106i	106j	106k	106l	106m	106n	106o	106p	106q	106r	106s	106t	106u	106v	106w	106x	106y	106z
Ch pressure	27	268	27	271	269	268	271	271	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272
Trottle Valve	10	9	10	10	10	11	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Forline Pres	235	230	232	238	237	236	234	233	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236
Gas 1	11	10.9	11.2	11.2	11	10.8	11.2	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Out1 (Synthetic)	25	24.8	24.9	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
stage	1	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
susceptor temp.	9	5	1	8	5	5	5	9	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

8



Input Vector

1

Similarity	0.88	0.91	0.97	0.99	0.90	0.89	0.95	0.98	0.94
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124

Similarity cut off

0.97



FIG-1B

Ch pressure	27	268	27	271	269	268	271	271	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272
Trottle Valve	10	9	10	10	10	11	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Forline Pres	235	230	232	238	237	236	234	233	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236
Gas 1	11	10.9	11.2	11.2	11	10.8	11.2	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Out1 (Synthetic)	25	24.8	24.9	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
stage	1	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
susceptor temp.	9	5	1	8	5	5	5	9	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

108

Output Prediction

Weights

Ch pressure	0.4
Trottle Valve	0.2
Forline Pres	0.2
Gas 1	0.1
Out1 (Synthetic)	0.1
susceptor temp.	0.1



Index	0.98
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114

Select set

Vector Weight	0.4	0.3	0.3	0.3
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Vector Weight

126

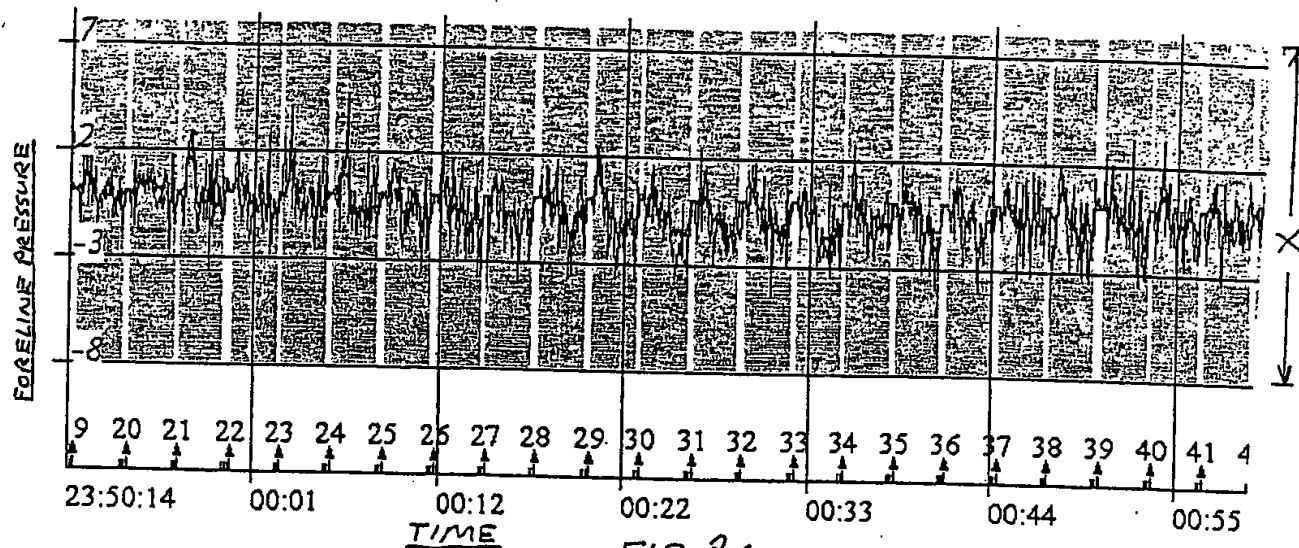


FIG. 2A

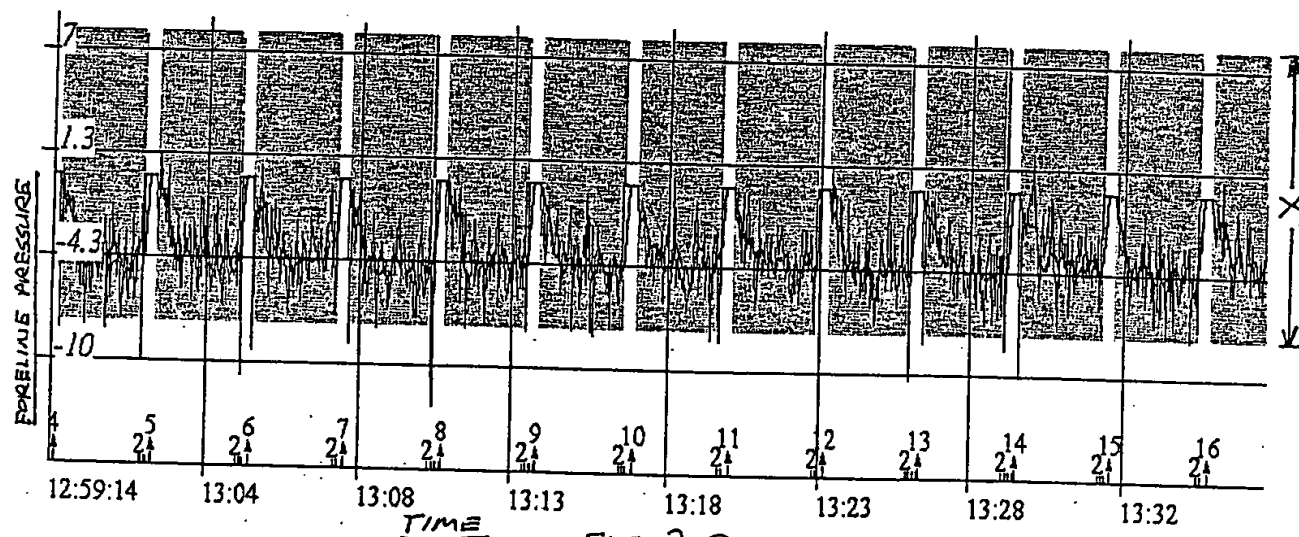


FIG. 2B

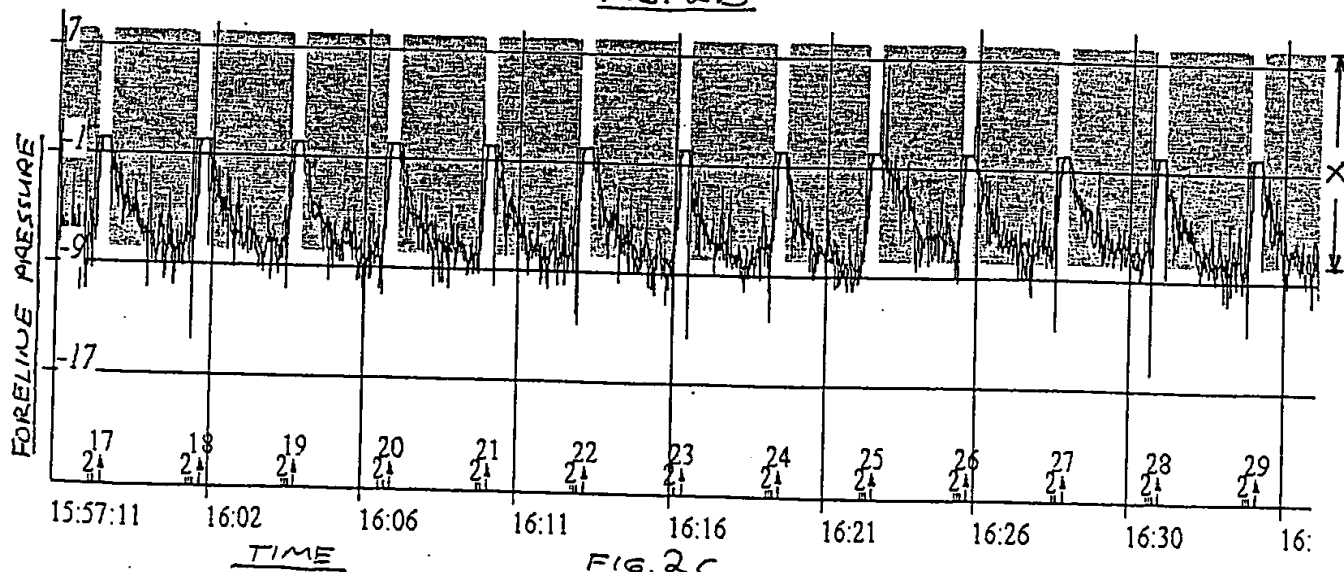


FIG. 2C

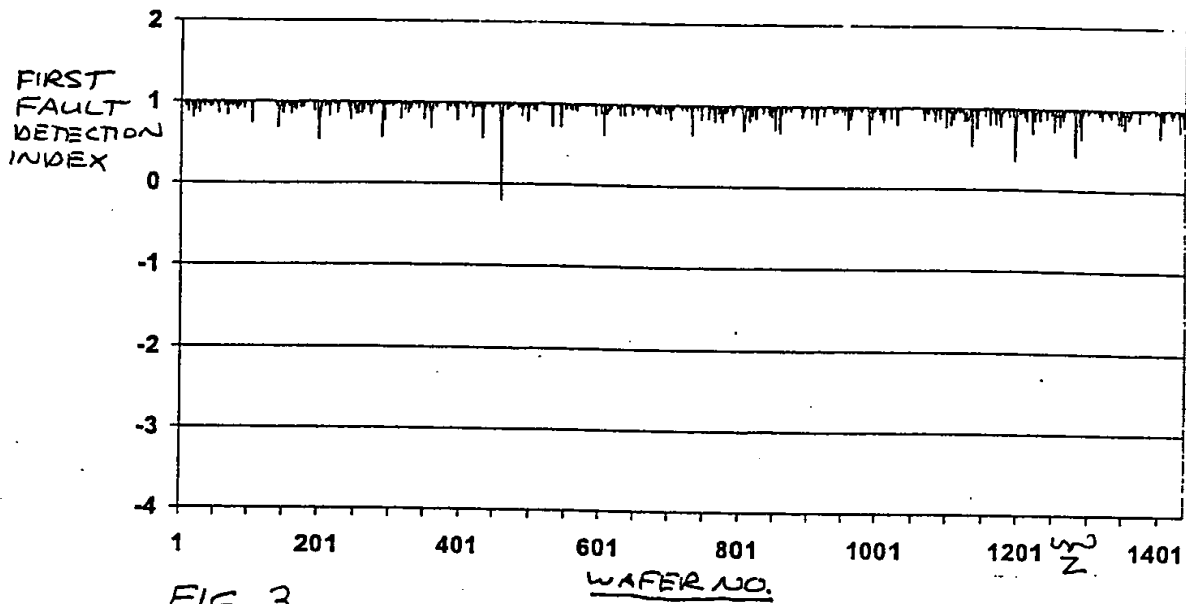


FIG. 3

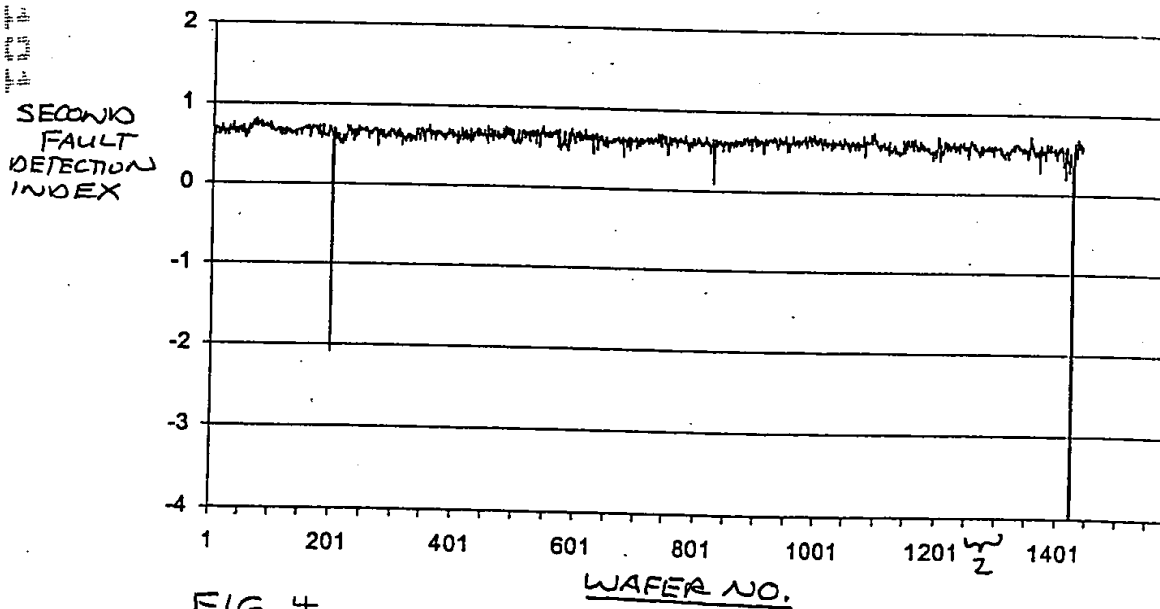


FIG. 4

Gas 1

0

-0.267

-0.533

-0.8

2.1 156

2.1 157

2.1 158

09:07:57 09:09 09:10 09:10 09:11 09:12 09:12 09:13 09:14

TIME

FIG 7A

FIG. 7A

FIG. 7B

FIG. 7.C

FIG. 7D

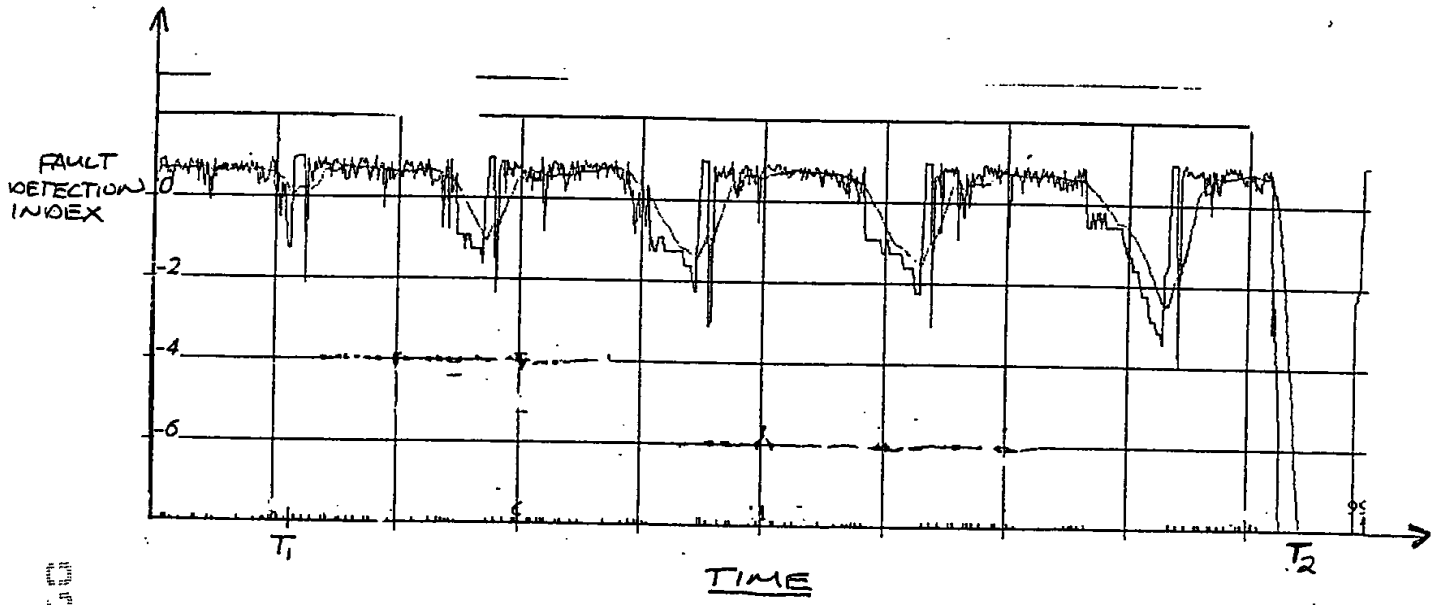


FIG. 8A

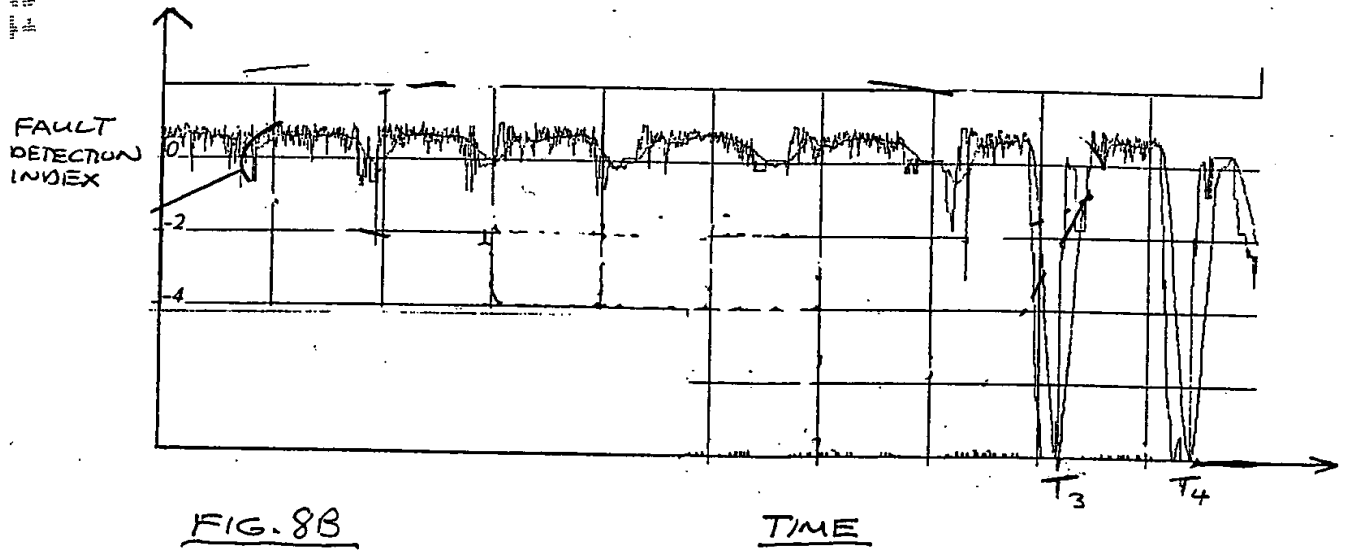
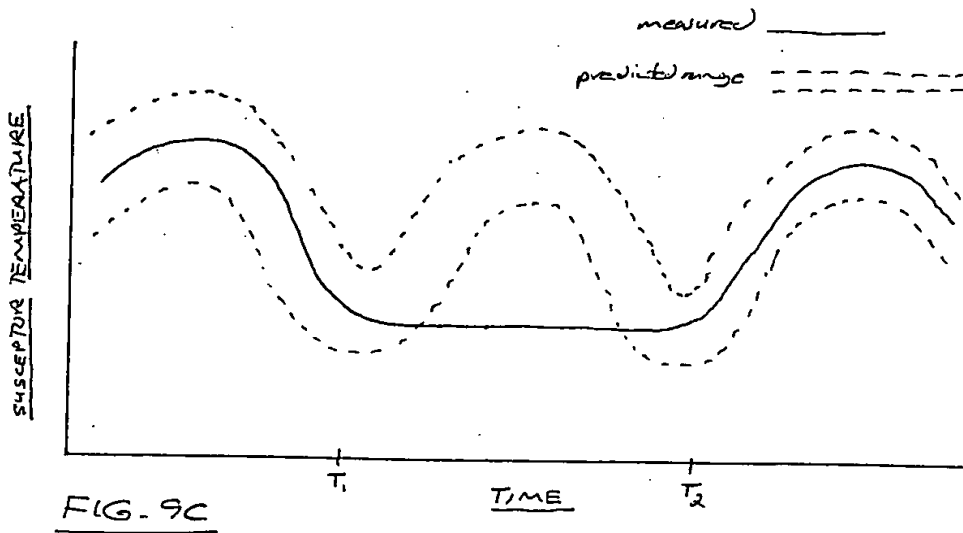
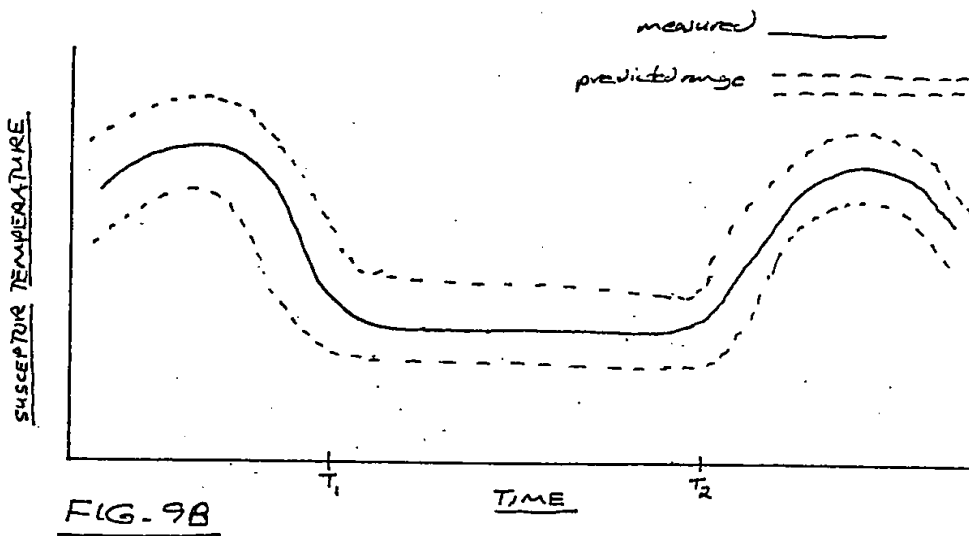
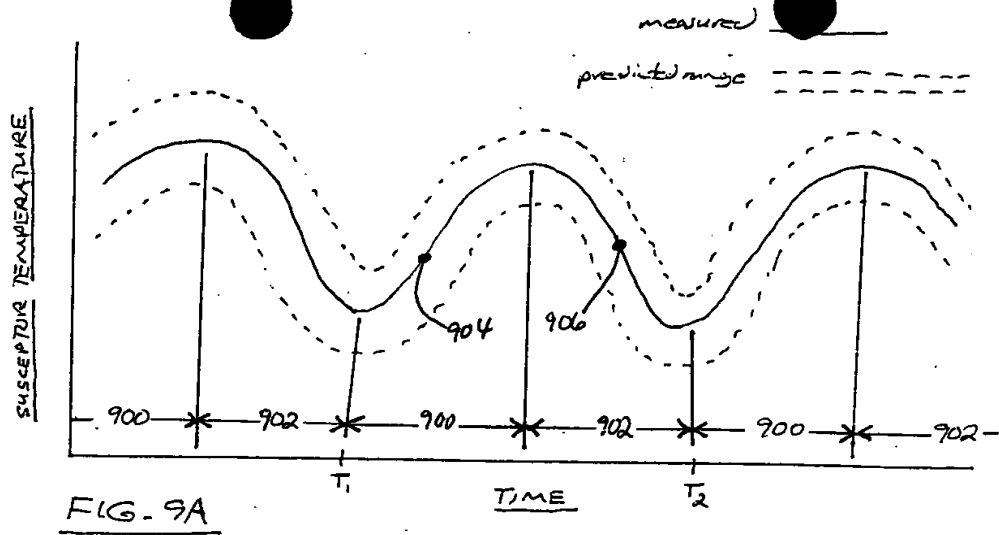


FIG. 8B



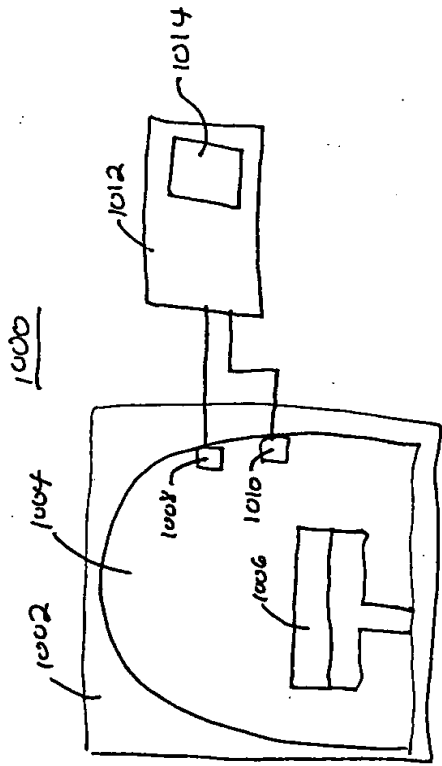


FIG. 10

